



## INFORMATION DISCLOSURE STATEMENT

Applicant : Kain et al.  
App. No. : 10/638,173  
Filed : August 6, 2003  
For : ALTERNATIVE SUBSTRATES AND  
FORMATS FOR BEAD-BASED ARRAY  
OF ARRAYS™  
Examiner : Unknown  
Group Art Unit : 3747

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Enclosed is form PTO-1449 listing 136 references that are of record in U.S. patent application No. 09/782,588, filed February 2, 2001, which is the parent of this continuation application, and is relied upon for an earlier filing date under 35 U.S.C. § 120. Copies of the references are not submitted pursuant to 37 C.F.R. § 1.98(d).

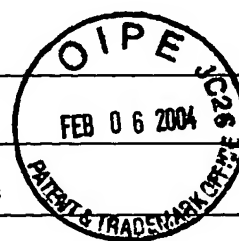
This Information Disclosure Statement is being filed before the receipt of a first Office Action on the merits, and presumably no fee is required in accordance with 37 C.F.R. § 1.97(b)(3). If a first Office Action on the merits was mailed before the mailing date of this Statement, the Commissioner is authorized to charge the fee set forth in 37 C.F.R. § 1.17(p) to Deposit Account No. 11-1410.

Respectfully submitted,  
KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 2/4/04

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FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. ILLINC.026C1	APPLICATION NO. 10/638,173
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (USE SEVERAL SHEETS IF NECESSARY)		APPLICANT Kain et al.	GROUP 3747
		FILING DATE August 6, 2003	



## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
	1	4,200,110	04/1980	Peterson et al.			
	2	4,499,052	02/1985	Fulwyler			
	3	4,682,895	07/1987	Costello			
	4	4,785,814	11/1988	Kane			
	5	4,822,746	04/1989	Walt			
	6	4,824,789	04/1989	Yafuso et al.			
	7	4,999,306	03/1991	Yafuso et al.			
	8	5,002,867	03/1991	Macevicz			
	9	5,028,545	07/1991	Soini			
	10	5,105,305	04/1992	Betzig et al			

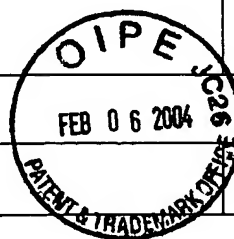
## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	11	EP 0 269 764	06/1998	Europe				
	12	EP 0 392 546	10/1990	Europe				
	13	EP 0 478 319	04/1992	Europe				
	14	EP 0 723 146	07/1996	Europe				
	15	WO 89/11101	11/1989	PCT				
	16	WO 93/02360	02/1993	PCT				

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)	
	17	Abel et al., <b>Fiber-Optic Evanescent Wave Biosensor for the Detection of Oligonucleotides</b> , <i>Anal. Chem.</i> 68:2905-2912 (1996)
	18	Anonymous, <b>Microsphere Selection Guide</b> , <i>Bang Laboratories, (Fisher, In)</i> September 1998
	19	Anonymous, <b>Fluorescent Microspheres</b> , <i>Tech. Note 19, Bang Laboratories, (Fisher, In)</i> February 1997
	20	Bangs, L.B., <b>Immunological Applications of Microspheres</b> , <i>The Latex Course, Bangs Laboratories (Carmel, IN)</i> April 1996
	21	Barnard et al., <b>A Fibre-Optic Chemical Sensor with Discriminatory Sensing Sites</b> , <i>Nature</i> 353:338-340 (1991)

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*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.	

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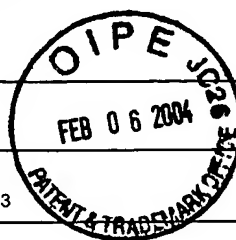
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
	22	5,114,864	05/1992	Walt			
	23	5,132,242	07/1992	Cheung			
	24	5,143,853	09/1992	Walt			
	25	5,194,300	03/1993	Cheung			
	26	5,244,636	09/1993	Walt et al.			
	27	5,244,813	09/1993	Walt et al.			
	28	5,250,264	10/1993	Walt et al.			
	29	5,252,494	10/1993	Walt			
	30	5,298,741	03/1994	Walt et al.			
	31	5,302,509	04/1994	Cheeseman			

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	32	WO 93/25563	12/1993	PCT				
	33	WO 96/03212	02/1996	PCT				
	34	WO 97/14028	04/1997	PCT				
	35	WO 97/14928	04/1997	PCT				
	36	WO 97/31256	08/1997	PCT				
	37	WO 97/40385	10/1997	PCT				

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)	
	38	Chen et al., <b><u>A Microsphere-Based Assay for Multiplexed Single Nucleotide Polymorphism Analysis Using Single Base Chain Extension</u></b> , <i>Genome Research</i> 10(4):549-557 (2000)
	39	Czarnik, <b><u>Illuminating the SNP Genomic Code</u></b> , <i>Modern Drug Discovery</i> 1(2):49-55 (1998)
	40	Drmanac et al., <b><u>Sequencing by Oligonucleotide Hybridization: A Promising Framework in Decoding of the Genome Project</u></b> , <i>The First International Conf. on Electrophoresis</i> , Apr. 10-13, 1990 Florida State Univ.
	41	Drmanac et al., <b><u>Prospects for a Miniaturized, Simplified and Frugal Human Genome Project</u></b> , <i>Scientia Yugoslavica</i> 16(1-2):97-107 (1990)
	42	Drmanac, et al., <b><u>Sequencing by Hybridization (SBH) with Oligonucleotide Probes as an Integral Approach for the Analysis of Complex Genomes</u></b> , <i>Inter. J. of Genome Research</i> 1(1):59-79 (1992)

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
	43	5,320,814	06/1994	Walt et al.			
	44	5,357,590	10/1994	Auracher			
	45	5,380,489	01/1995	Sutton et al.			
	46	5,435,724	07/1995	Goodman et al.			
	47	5,474,895	12/1995	Ishii et al.			
	48	5,481,629	01/1996	Tabuchi			
	49	5,494,798	02/1996	Gerdt et al.			
	50	5,494,810	02/1996	Barany et al.			
	51	5,496,997	03/1996	Pope			
	52	5,512,490	04/1996	Walt et al.			

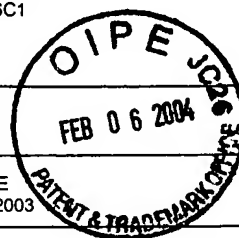
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
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	53	WO 98/13523	04/1998	PCT				
	54	WO 98/40726	09/1998	PCT				
	55	WO 98/50782	11/1998	PCT				
	56	WO 98/53093	11/1998	PCT				
	57	WO 98/53300	11/1998	PCT				
	58	WO 99/18434	04/1999	PCT				

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	59	Drmanac, et al. <b>Sequencing by Hybridization</b> , <i>Automated DNA Sequencing and Analysis</i> ed. M. Adams, C. Fields and J. Venter (1994)
	60	Ferguson et al., <b>A Fiber-Optic DNA Biosensor Microarray for the Analysis of Gene Expression</b> , <i>Nature Biotech</i> 14:1681-1684 (1996)
	61	Fuh et al., <b>Single Fibre Optic Fluorescence pH Probe</b> , <i>Analyst</i> 112:1159-1163 (1987)
	62	Healey et al., <b>Improved Fiber-Optic Chemical Sensor for P nicillin</b> , <i>Anal. Chem.</i> 67(24):4471-4476

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U.S. PATENT DOCUMENTS							
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	63	5,516,635	05/1996	Ekins et al.			
	64	5,565,324	10/1996	Still et al.			
	65	5,573,909	11/1996	Singer et al.			
	66	5,575,849	11/1996	Honda et al.			
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	68	5,639,603	06/1997	Dower et al.			
	69	5,656,241	08/1997	Seifert et al.			
	70	5,690,894	11/1997	Pinkel et al.			
	71	5,814,524	10/1998	Walt			
	72	5,830,711	11/1998	Barany et al.			

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	73	WO 99/60170	11/1999	PCT				
	74	WO 99/67414	12/1999	PCT				
	75	WO 99/67641	12/1999	PCT				
	76	WO 00/04372	01/2000	PCT				
	77	WO 00/13004	03/2000	PCT				
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	79	Healey et al., <u>Development of a Penicillin Biosensor Using a Single Optical Imaging Fiber</u> , <i>SPIE Proc.</i> 2388:568-573 (1995)					
	80	Healey et al., <u>Fiberoptic DNA Sensor Array Capable of Detecting Point Mutations</u> , <i>Analytical Biochem.</i> 251:270-279 (1997)					
	81	Hirschfeld et al., <u>Laser-Fiber-Optic Optrode for Real Time In Vivo Blood Carbon Dioxide Level Monitoring</u> , <i>J. of Lightwave Tech.</i> LT-5(7):1027-1033 (1987)					
	82	Iannone et al., <u>Multiplexed Single Nucleotide Polymorphism Genotyping...</u> , <i>Cytometry</i> 39:131-140 (2000)					

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	83	5,840,256	11/1998	Demers et al.			
	84	5,854,684	12/1998	Stabile et al.			
	85	5,863,708	01/1999	Zanzucchi et al.			
	86	5,863,722	01/1999	Brenner			
	87	5,888,723	03/1999	Sutton et al.			
	88	5,900,481	05/1999	Lough et al.			
	89	5,679,524	10/1997	Nikiforov et al.			
	90	5,856,083	01/1999	Chelsky et al.			
	91	5,858,732	01/1999	Solomon et al.			
	92	6,013,456	01/2000	Akgavan-Tafti			

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							YES	NO
	93	WO 00/39587	07/2000	PCT				
	94	WO 00/47996	08/2000	PCT				
	95	WO 00/48000	09/2000	PCT				
	96	WO 00/58516	10/2000	PCT				
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	99	Michael et al., <u>Making Sensors out of Disarray: Optical Sensor Microarrays</u> , <i>Proc. SPIE</i> 3270:34-41 (1998)
	100	Michael et al., <u>Randomly Ordered Addressable High-Density Optical Sensor Arrays</u> , <i>Anal. Chem.</i> 70(7):1242-1248 (1998)
	101	Michael et al., <u>Fabrication of Micro-and Nanostructures Using Optical Imaging Fibers and Their Use as Chemical Sensors</u> , <i>Proc. 3<sup>rd</sup> Intl. Symp. Microstructures and Microfabricated Systems</i> , ed. P.J. Hesketh, et al. v. 95-7, Electrochem. Soc., 152-157 (1997)
	102	Mignani et al., <u>In-Vivo Biomedical Monitoring by Fib r-Optic Systems</u> , <i>J. of Lightwave Tech.</i> 13(7):1396-1406 (1995)

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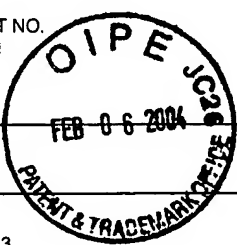
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	103	6,023,540	02/2000	Walt et al.			
	104	6,027,889	02/2000	Barany et al.			
	105	6,051,380	04/2000	Sosnowski et al.			
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	107	6,083,763	07/2000	Balch			
	108	6,110,678	08/2000	Weisburg et al.			
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	110	6,172,218	01/2001	Brenner			
	111	6,251,639	06/2001	Kurn			
	112	6,268,148	07/2001	Barany et al.			

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							YES	NO
	113	WO 00/71992	11/2000	PCT				
	114	WO 00/71995	11/2000	PCT				
	115	WO 00/75373	12/2000	PCT				
	116	EP 0 269 764	06/1988	EP				

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)	
	117	Pantano et al., <u>Ordered Nanowell Arrays</u> , <i>Chem. Mater.</i> 8(12):2832-2835 (1996)
	118	Peterson et al., <u>Fiber-Optic Sensors for Biomedical Applications</u> , <i>Science</i> 13:123-127 (1984)
	119	Peterson et al., <u>Fiber-Optic Ph Probe for Physiological Use</u> , <i>Anal. Chem.</i> 52:864-869 (1980)
	120	Piunno et al, <u>Fiber-Optic DNA Sensor for Fluorometric Nucleic Acid Determination</u> , <i>Anal. Chem.</i> 67:2635-2643 (1995)
	121	Pope, <u>Fiber Optic Chemical Microsensors Employing Optically Active Silica Micr sph r s</u> , <i>SPIE</i> , 2388:245-256 (1995)

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	123	5,466,319	11/1995	Zager et al.			
	124	6,327,410	12/2001	Walt et al.			
	125	6,342,349	01/2002	Virtanen			
	126	5,254,477	10/1993	Walt et al.			
	127	5,518,883	05/1996	Soini			
	128	6,008,892	12/1999	Kain et al.			
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	130	5,649,924	07/1997	Everett			

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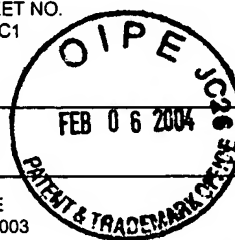
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	131	Shoemaker et al., <u>Quantitative phenotypic analysis of yeast deletion mutants using a highly parallel molecular bar-coding strategy</u> , <i>Nature Genetics</i> 14:450-456 (1996)
	132	Strachan et al., <u>A Rapid General Method for the Identification of PCR Products Using a Fibre-Optic Biosensor and its Application to the Detection of Listeria</u> , <i>Letters in Applied Microbio.</i> 21:5-9 (1995)
	133	Walt, <u>Fiber Optic Imaging Sensors</u> , <i>Accounts of Chem. Research</i> 31(5):267-278 (1998)

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	134	Walt, <u>Fiber-Optic Sensors for Continuous Clinical Monitoring</u> , <i>Proc. IEEE</i> , 80(6):903-911 (1992)
	135	Lyamichev et al., <u>Polymorphism identification and quantitative detection of genomic DNA by invasive cleavage of oligonucleotide probes</u> , <i>Nature Biotechnology</i> , 17:292-296 (1999)
	136	Barker et al., <u>Development and Cellular Applications of Fiber Optic Nitric Oxide Sensors based on...</u> , <i>Analytical Chem.</i> 70(23) (1998)

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